

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and following remarks. Claims 1, 4, 5, 8, 11, 14, 15, and 20 are amended in this Amendment. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the Application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 1-20 remain pending in this Application.

In the Office Action of October 31, 2005, the Examiner allows claims 13-19 as well as claim 5, 11 and 12 which are objected to as depending from a rejected base claim. Applicants appreciate the Examiner's allowance of these claims.

In the Office Action of October 31, 2005, the Examiner objects to the drawings under 37 C.F.R. § 1.83(a) asserting that the drawings do not show every feature of the invention specified in the claims. Specifically, the Examiner asserts that the "cross members" (recited in claim 4) are not shown in the drawings. Applicants respectfully assert the objection is overcome since claim 4 is amended herein to correct a typographical error and the term "grille" has been replaced with "first apertured plate." Applicants believe that FIG. 5, when considered in combination with other portions of the disclosure (e.g., paragraph [0029], etc.), sufficiently shows the "cross member" recited in claim 4. For example, paragraph [0029], with reference to FIG. 5, states that "apertures 60 provided in first plate 44 may include one or more deflectors 170." The "deflectors 170" are one non-exclusive exemplary embodiment of the "cross members" recited in claim 4. Accordingly, withdrawal of this objection is requested.

The Examiner also rejects claim 20 under 35 U.S.C. § 112, second paragraph for lack of antecedent basis for the phrase "the lead aperture." Applicants respectfully assert the rejection is overcome since claim 20 is amended herein and the phrase "lead aperture" has been amended to recite "a first aperture" which has a proper antecedent basis in claim 10. Withdrawal of this rejection is requested.

The Examiner also rejects claims 1-3 and 6-10 under 35 U.S.C. § 102(a) and claim 4 under 35 U.S.C. § 103 in the Office Action of October 31, 2005. The Examiner asserts the Bash et al. reference anticipates the claims (obviates claim 4) since it discloses elements 602, 604, 606 and 614. The examiner also asserts that the claim 4 limitation of multiple sets of cross members is an obvious design choice. Applicants respectfully traverse these rejections.

Claim 1 is in independent format and claims 2-4, 6 and 7 depend from claim 1. Claim 1 is amended herein to recite:

1. (Currently Amended) A system for modulating the flow of air to be supplied to a space, the system comprising:

a plenum for supplying pressurized air to the space;

a ventilation module having an upper area and a lower area, the ventilation module being in communication with the plenum for receiving the pressurized air from the plenum and conveying the pressurized air to the space;

a grille having at least one diffusing rib extending longitudinally along the grille, the grill being located proximate the upper area of the module for diffusing the pressurized air exiting the ventilation module into the space;

a first apertured plate located below the grille, the first apertured plate having a plurality of holes defining a gross aperture area exposed to the plenum for providing a flow of air; and

wherein a hole of the plurality of holes has an aspect ratio different than one such that it has a longitudinal extent aligned substantially transverse to the longitudinal extent of the diffusing rib of the grille.

Claim 8 is in independent format and claims 9-12 and 20 depend from claim 8. Claim 8 is amended herein to recite:

8. (Currently Amended) A system to modify the flow characteristics of a linear bar type supply air grille to enhance its

performance when applied to a perimeter located, under-floor air distribution system, the system comprising:

a plenum adapted for supplying pressurized air to the linear bar type supply air grille;

a ventilation module having an upper area and a lower area, the ventilation module adapted to be in communication with the plenum for receiving air from the plenum and conveying the air through the linear bar type supply air grille and to the space;

a first apertured plate located below the linear bar type supply air grille, the first apertured plate having a plurality of holes defining a gross aperture area exposed to the plenum for providing a constant velocity flow of air; and

a second apertured plate located proximate the first apertured plate, the apertured plates being movable with respect to each other to define a net aperture area exposed to the plenum.

Claim 1, as amended herein, is directed to “A system for modulating the flow of air to be supplied to a space” including a “a plenum”, “a ventilation module”, “a grille having at least one diffusing rib extending longitudinally along the grille, the grill being located proximate the upper area of the module for diffusing the pressurized air exiting the ventilation module into the space”, “a first apertured plate located below the grille, the first apertured plate having plurality of holes” and wherein “a hole” of the first apertured plate has “an aspect ratio different than one” (1) so it has a “longitudinal extent” aligned substantially “transverse to the longitudinal extent of the diffusing rib of the grille.” The Bash et al. reference completely fails to disclose such a system having each and every limitation arranged as in the claim and therefore cannot anticipate claim 1 or its dependent claims (2-4, 6 and 7).

Claim 8, as amended herein, is directed to “A system to modify the flow characteristics of a linear bar type supply air grille to enhance its performance when applied to a perimeter located, under-floor air distribution system”, the system having “a plenum for supplying pressurized air to the linear bar type supply air grille; a ventilation module”, “a first apertured plate located below the linear bar type supply air grille, the first apertured plate having a plurality of holes defining a

gross aperture area exposed to the plenum for providing a constant velocity flow of air” and “a second apertured plate” “movable with respect to each other to define a net aperture area exposed to the plenum.” The Bash et al. reference completely fails to disclose such a system having each and every limitation arranged as in the claim and therefore cannot anticipate claim 8 or its dependent claims (9-12 and 20).

Accordingly, withdrawal of the 35 U.S.C. § 102(a) rejection is requested. Applicants assert the Examiner’s 35 U.S.C. § 103 rejection of claim 4 is also mooted in view of the above and request withdrawal of same. Applicants note that the Bash et al. reference discloses various control methodologies for automatically adjusting “a plurality of automatically adjustable vents” in the floors of “high-density data centers.” Bash column 2, lines 15-20. Bash et al. acknowledges that adjustable floor vents preexisted, noting that “[o]ccasionally, data center vents are provided as manually adjustable between full open and full closed positions.” Id. Bash et al. discloses and teaches a common parallel-blade, shafted damper. Bash et al. at column 16, line 62. which describes this method as “basically a louvered vane vent” (see Figures 6A through 9B). Figures 7A and 7B of the Bash et al. simply depict a sliding-plate damper with uniformly distributed slot apertures.

More particularly, Bash et al. disclose and teach a pressure-based control methodology (e.g. sensing, determining, modulating, increasing, decreasing, numerically modelling, passively controlling) for “a plurality of automatically adjustable vents”...“in a data center.” Nowhere does the Bash et al. reference disclose or teach any synergistic air flow relationship for a system as set forth in claim 1 nor does Bash et al disclose or teach a system having a linear bar type supply air grille and apertured plate combination that enhances room air induction as set forth in claim 8.

In view of the claims as amended herein and the above Remarks, Applicants assert the present Application is now in condition for allowance. Favorable reconsideration of the Application as amended is respectfully requested. The Examiner is invited to contact the

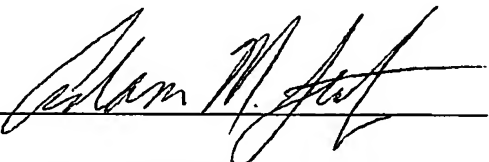
undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 1/31/2006

FOLEY & LARDNER LLP
Customer Number: 31050
Telephone: (313) 234-7136
Facsimile: (313) 234-2800

By 

Adam Gustafson
Registration No. 54,601
John A. VanOphem
Registration No. 38,646
Attorneys for Applicant